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MANUAL PREVIEW

Wisconsin

Service Manual

AENL & AENLD

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WI-S-AENL+D

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BOOK OF INSTRUCTIONS

WISCONSIN

Air-Cooled

SINGLE CYLINDER ENGINE

Model AENL

3" Bore

3¼" Stroke

23 cu. in. Disp.

NOTE: The AENL engine with STELLITE exhaust valve and seat insert has the letter 'D' suffixed to the model designation and is referred to as the Model AENLD.

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WISCONSIN MOTOR CORPORATION

Milwaukee 46, Wisconsin, U. S. A.

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INTRODUCTION

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This manual has been compiled to suit the service requirements of the basic engines and accessories most commonly supplied with engines.

Wisconsin Motor Corporation adapts its engines to suit individual customer requirements whenever practical. However, it would become too involved to include all variations in one manual; therefore, should any problems arise concerning engine servicing, we advise that a Wisconsin distributor or authorized service station be contacted, as they are capable of identifying all parts by the specification number stamped on the name plate of engine.

A listing of approved Wisconsin service stations appears in the back of this manual.

Wisconsin heavy duty air cooled engines are of the most advanced design and are built in a modern factory, equipped with the latest machinery available. Only the best materials, most suitable for the particular part, are used. During production, every part is subjected to the most rigid inspection, as are also the completely assembled engines. After assembly, every engine is operated on its own power for several hours. All adjustments are carefully made so that each engine will be in perfect operating condition when it leaves the factory.

Back of the Wisconsin Motor Corporation are more than fifty years of engineering experience in the design of gasoline engines for every conceivable type of service. The performance of these engines is proof of the long satisfactory service you too can expect from your engine.

Like all fine machinery, the engine must be given regular care and be operated in accordance with the instructions.

SAFETY PRECAUTIONS

Precaution is the best insurance against an accident.

Never fill fuel tank while engine is in operation or hot, to avoid the possibility of spilled fuel causing a fire.

Never operate engine in a closed building unless the exhaust is piped outside. This exhaust contains carbon monoxide, a poisonous, odorless and invisible gas, which if breathed causes serious illness and possible death.

Never make adjustments on machinery while it is connected to the engine, without first removing the ignition cable from the spark plug. Turning over the machinery by hand during adjusting or cleaning might start the engine, and machinery with it, causing serious injury to the operator.

Keep this book handy at all times, familiarize yourself with the operating instructions.

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Fig. 1

287039C

CARBURETOR and MAGNETO side view of ENGINE

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Fig. 2

287041C

FUEL TANK side of ENGINE

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SECTIONAL VIEWS OF MODEL AENL ENGINE

Fig. 3



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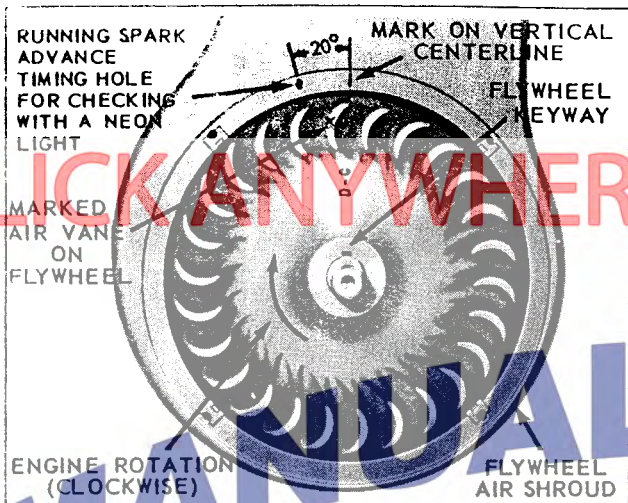


Fig. 12

208068C-1



Fig. 13

287043C



Fig. 14

208069C

the shroud as shown in Fig. 12, or in the center of the timing hole as illustrated in Fig. 13.

3. Leave the flywheel in this position. At this point the keyway for mounting the flywheel is on top.
4. Mount magneto to engine, meshing the gears so that when the magneto is in place, the 'X' marked tooth on the magneto gear will be visible in the center of the inspection hole of the crankcase as shown in Fig. 14.

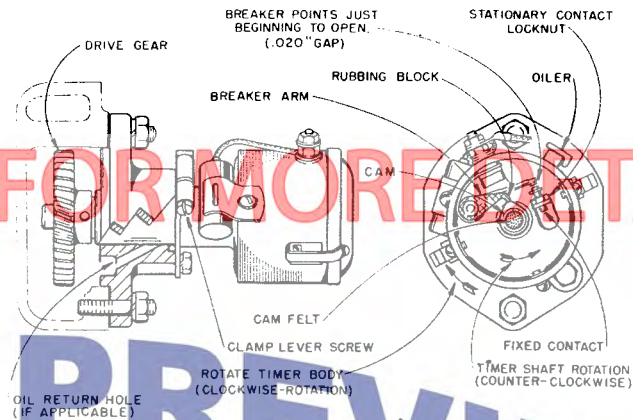


Fig. 15, IGNITION TIMER

When the magneto is properly timed, the impulse coupling will snap when the 'DC' marked vane of the flywheel, lines up with the vertical centerline mark on the flywheel shroud, or with the timing hole in air intake screen, while turning the engine over slowly with the rope starter sheave.

The running spark advance is 20°. For checking timing with a neon light, the running spark advance is indicated by a slotted hole on the flywheel screen rim, as shown in Fig. 13. The center of the radii for the right hand edge of the slotted hole is 20° or 1½ inches before the vertical center of the cylinder.

BATTERY IGNITION

TIMING (Fig's. 12, 13, 15)

Ignition timer is used in place of a magneto, when 6 or 12 volt separate starter and generator is used.

Time engine or check timing in the following manner:

The ignition timer breaker point gap should be .020 inch. This opening must be checked before the timer body is set, otherwise any adjustment made to the breaker point opening will change the ignition advance adjustment. To readjust the breaker point gap, turn the engine over by means of the rope starter sheave so that the ignition timer breaker arm rubbing block is on a high point of the cam. Loosen the stationary contact locknut and screw fixed contact, in or out, until correct gap of .020 inch is obtained. Tighten locknut and recheck gap. See Fig. 15.

Timing marks on the flywheel and shroud are exposed when the rope starter sheave and air intake screen are removed, as illustrated in Fig. 12. However, a 3/8" dia. hole on the vertical center and a slotted hole to the left, on the rim of the air intake screen as shown in Fig. 13, makes it possible to time the engine without removing the sheave and screen, if so desired.

1. Remove spark plug to make cranking easier.
2. Turn engine over with the starter sheave until the edge of the D-C and 'X' marked vane on the flywheel is in line with the mark on the vertical centerline of the shroud as shown in Fig. 12, or in the center of the 3/8" timing hole as shown in Fig. 13.